

Lupinus sericeus

Silky Lupine

by Kathy Lloyd, Montana Native Plant Society

There are two Lewis and Clark specimens of silky lupine (*Lupinus sericeus*) still extant today. One is housed at the Lewis & Clark Herbarium at the Academy of Natural Sciences in Philadelphia, and the other at the Herbarium of the Royal Botanic Gardens in Kew, Surrey, England. It is amazing to consider the 200 year journey of the plants collected by Lewis and Clark, the miles they traveled, the numerous hands they passed through, where they ended up, and our modern day attempts to sort it all out. It now appears that the silky lupine specimen at the Lewis & Clark Herbarium was collected in Idaho on June 5, 1806. The original annotation on the specimen, made by the botanist Frederick Pursh says, "New Species Flowers cream coloured with a Small tinge of blue. On the Kooskooskee Jun: 5th 1806." The Kooskooskee is the name given by the expedition to the present-day Clearwater River. In early June 1806 the entire expedition was at Camp Chopunnish near Kamiah, Idaho waiting for enough snow to melt to travel the Lolo Trail into Montana. Lewis's journal for June 5 mentions observing "several of the pea blume flowering plants" and one of them could have been silky lupine.

The specimen that is now at Kew in England has a rather convoluted history, and it is this specimen that was probably collected in Montana. It seems that Frederick Pursh, a botanist charged with the task of looking at some of the Lewis and Clark plant specimens, took some of the collections with him to England without the knowledge or permission of anyone connected to the botanical portion of the expedition. The Lewis and Clark plant specimens that Pursh took to England were eventually auctioned off and some of the plants were fortuitously returned to the United States. The silky lupine specimen from Montana, however, remained in England and was eventually donated to the herbarium at Kew, where it resides today. Lewis collected the Montana silky lupine specimen on July 7, 1806 as he followed the Blackfoot River to Lewis & Clark Pass. Pursh's label, still with the specimen, reads, "Lupinus Sericeus.* Cokahlaishkit. Jul. 7, 1806? Flowers yellowish white."

Silky lupine is a handsome member of the pea family (Fabaceae). It is a perennial that is normally from eight to 20 inches tall, with one or several branched stems arising from a woody caudex. The leaves are palmately compound, with seven to nine leaflets. The flowers are arranged on the ends of the stems in many-flowered racemes. They are generally bluish or pale lavender, but occasionally may be cream colored, and are hairy on the back surface of the banner. *Sericeus* means silky, and refers to the soft hairs on the plant.

You can find silky lupine east of the Cascade Range from British Columbia and Alberta in Canada south to California, Arizona, Colorado, and east to South Dakota. And of course, you can see it in Montana, as did Meriwether Lewis. Silky lupine is found in a variety of habitats including grasslands, openings in aspen and conifer woodlands, and sagebrush. It does best in dry, sandy, or loamy soils on dry, rocky slopes and in open

woods. It doesn't like to be too wet and although the plant can survive in partial shade, it does best in full sun.

Because of its deep root system, silky lupine is able to sprout from the caudex following disturbance. The seeds that are stored in the soil easily germinate following fire or other disturbance. As do other members of the pea family, silky lupine has the ability to fix nitrogen and that allows it to colonize low-fertility sites. This characteristic may be of value when considering rehabilitation of disturbed areas such as old roadbeds and mining sites.

White-tailed deer, upland game birds, small nongame birds, and small mammals consume silky lupine and the plant also provides cover for small mammals and birds. The aboveground, dead parts of the plant are favored by bighorn sheep during the winter in Glacier National Park. Although wildlife can apparently eat silky lupine, domestic animals such as sheep don't fare so well. The plant produces quinolizidine alkaloids that affect the nervous system of livestock. Lupines (*Lupinus* spp.) are responsible for more losses among sheep in Montana, Idaho, and Utah than any other single plant genus. However, silky lupine and other lupines are generally only consumed when other forage is not available, and as silky lupine increases with intense grazing, proper grazing and livestock management techniques can be utilized to favor more palatable species.

The Okanagan-Colville Indians used silky lupine in a variety of ways. The seeds were pounded, mixed with water and used as an eye medicine. The plants were also used as fiber for bedding and the flooring in sweathouses. Today, silky lupine can be an attractive addition to a xeric, native garden.

If you plant silky lupine in your native garden, or see it in natural settings as you travel in Montana, remember Meriwether Lewis and how one plant he collected in Montana traveled all the way to England and can be seen there today.